

ACCESSION NR: AP4042336

ENCLOSURE: 01

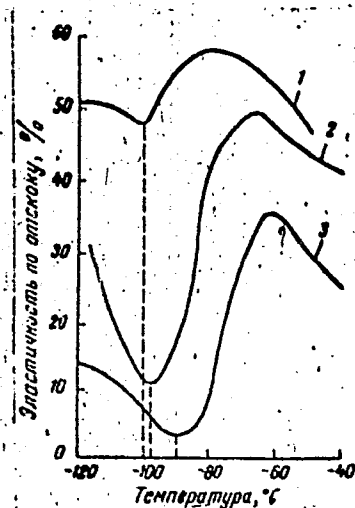


Fig. 1. Dependence of recoil elasticity on temperature for siloxane rubbers with varying contents of $(\text{ClCH}_2)(\text{CH}_3)\text{SiO}$ groups: 1 - 3.5 mol. %; 2 - 10 mol. %; 3 - 25 mol. %. Ordinate = recoil elasticity in %; abscissa = temperature in $^{\circ}\text{C}$.

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ACCESSION NR: AP4042336

ENCLOSURE: 02

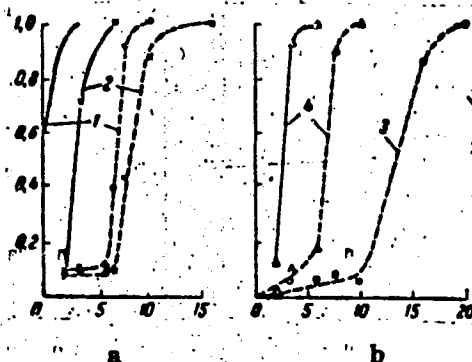


Fig. 2. Dependence of cold brittleness on the content of chloromethylsiloxane groups in the polymer: a - peroxide vulcanization; b - sulfur vulcanization. Solid line - at -60°C ; dashed line - at -70°C . The numbers 1-4 refer to 4 different polymer recipes. Ordinate = coefficient of cold brittleness; abscissa = content of $(\text{ClCH}_2)(\text{CH}_3)\text{SiO}$ groups in mol. %.

Card 5/5

L 21142-65 SPF(c)/EMP(j)/EWT(m) Pc-4/Pr-4 RM
ACCESSION NR: AP5001499 S/0138/64/000/012/0001/0007

AUTHOR: Borisov, S. N.; Kurlova, T. V.; Sviridova, N. G.

TITLE: Synthesis and properties of isomeric polysiloxane rubbers ¹⁵

SOURCE: Kauchuk i rezina, no. 12, 1964, 1-7

TOPIC TAGS: dimethylsiloxane rubber, methylpropylsiloxane rubber, diethylsiloxane rubber, isomeric polymer, modified dimethylsiloxane

ABSTRACT: The effect of structure on the low-temperature and other properties of modified dimethylsiloxane rubber has been studied. For this purpose dimethylsiloxane (I) rubbers modified by replacing part of their dimethylsiloxane groups with methylpropylsiloxane groups were synthesized for the first time, and their properties were compared with those of rubbers I which were similarly modified with diethylsiloxane groups. The respective methylpropylsiloxane (II) and diethylsiloxane (III) rubbers were isomeric polymers which differed only in the position of the Si atom in the silicon-carbon chain. Rubbers II and III, which contained various amounts and distributions of

Cord 1/3

L 21142-65

ACCESSION NR: AP5001499

2

modifying groups, were synthesized: 1) from condensation products of dimethyldichlorosilane and methylpropyldichlorosilane or from diethyldichlorosilane in 1/1 molar ratio in cyclic dimethylsiloxane $[(CH_3)_2SiO]_{3-6}$ at room temperature in the presence of H_2SO_4 ; 2) by copolymerization of cyclic dimethylsiloxanes and cyclosiloxanes isolated with aqueous alcohol from the hydrolysis products of methylpropyl or diethyldichlorosilane. The properties of rubbers II and III and of their vulcanizates and the effect of the amount (4—10 mol%) and distribution of modifying groups on these properties were studied in considerable detail. It was shown, in particular, that methylpropylsiloxane groups lower the density and packing density of rubbers. Uniform distribution of propyl groups along the backbone of rubber II does not affect chain flexibility, but methylpropylsiloxane blocks stiffen its structure. With an increase in the modifying group content, the thermal oxidative stability of rubber III drops more sharply than that of rubber II. The low-temperature properties of vulcanizates II and III are the same. Vulcanizates III have a higher tensile strength (34—39 kg/cm²) and lower elongation (180—250%) than vulcanizates II (21—29 kg/cm² and 260—325%, respectively). Orig. art. has: 3 figures and 6 tables.

Card 2/3

L 21142-65

ACCESSION NR: AP5001499

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S. V. Lebedev (All-Union Scientific Research Institute of Synthetic
Rubber)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 015

OTHER: 002

ATD PRESS: 3165

Card 3/3

L 25272-65 EWT(m)/EPF(c)/EPR/EWP(j)/EWA(c) Pc-4/Px-4/Py-4 RPL WW/JW/RM

3.6
3.4
B

ACCESSION NR: AP5001603

S/0062/64/000/012/2230/2232

AUTHOR: Borisov, S. N.; Vinogradova, V. V.; Lyashenko, I. N.; Nametkin, N. S.
Chernysheva, T. I.

TITLE: Addition of cyclic siloxanes, containing Si-H bonds, to unsaturated compounds

SOURCE: AN SSSR, Izvestiya. Seriya khimicheskaya, no. 12, 1964, 2230-2232

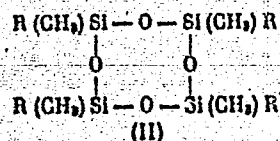
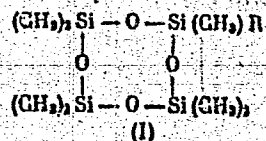
TOPIC TAGS: cyclic siloxane addition product, cyclic siloxane unsaturate adduct, synthesis

ABSTRACT: Four new addition products of Si-H bond containing cyclic siloxanes to unsaturated compounds were synthesized. The addition of heptamethylcyclotrasiloxane (I) to α -methylstyrene, nonene-1, methylmethacrylate and allylamine, and of sym. tetramethylcyclotetrasiloxane (II) to methylmethacrylate was effected by heating the reactants in the presence of 10% chloroplatinic acid. Regardless of the nature of the unsaturated compound the cyclic structure was preserved; and IR and NMR spectral data confirmed the following structures:

Card 1/2

L 25272-65

ACCESSION NR: AP5001603



Orig. art. has: 1 table and 2 formulas

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva
Akademii nauk SSSR (Institute of Petrochemical Synthesis Academy of Sciences
SSSR) Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo Kauchuka
(All-Union Scientific Research Institute of Synthetic Rubber)

SUBMITTED: 06May64

ENCL: 00

SUB CODE: GC, OC

NR REF SOV: 003

OTHER: 000

Card 2/2

BORISOV, S.N. (Moskva); LAVTEVA, D.G. (Moskva)

Nomographic method of determining zero approximations in solving
a system of transcendental equations. Nom. sbor. no. 387-85 '65.
(MIRA 18:10)

BORISOV. S.N. (Moskva)

Method for nomographing the relation

$$f(\phi_4) = \phi(1, \phi_3) \sim \phi(\phi_2, \phi_3).$$

$$g(\phi_1) \sim g(\phi_2)$$

Nom. sbor. no.3:103-108 '65.

(MIRA 18:10)

L 53800-65 EWT(m)/EPF(c)/EWP(j)/T Po-4/Pr-4 RM
ACCESSION NR: AP5014688 UR/0191/65/000/1.06/0024/0028
678.84

AUTHOR: Borisov, S. N.; Sviridova, N. G. 193

TITLE: Heterocondensation synthesis of polysiloxanes containing peripheral trimethylsiloxy groups

SOURCE: Plasticheskiye massy, no. 6, 1965, 24-28

TOPIC TAGS: polysiloxane, silicon polymer, elastomer, silicon rubber

ABSTRACT: Interest in expanding the useful temperature range of polydimethylsiloxanes led to attempts to modify them by replacing the Si-methyl groups with polar, unsaturated, and bulky groups such as $-O-Si(CH_3)_3$. The preparation of silicon-containing elastomers with peripheral trialkylsiloxy groups may yield elastomers with $Si(-O-)_4$ functions in the main chain, and with improved low-temperature properties resulting from disruption of the structure regularity by mobile R_3SiO groups. The reactions of a number of suitable compounds were investigated. Two new compounds were prepared. Methyl-(trimethylsiloxy)-diethoxysilane was obtained in 65% yield from the corresponding dichloride and ethanol in the presence of pyridine.

Card 1/2

L 53800-65

ACCESSION NR: AP5014688

Methyl-(trimethylsiloxy)-dibutoxysilane was obtained in 67% yield from the corresponding dichloride and sodium butoxide, and in 83% yield from butanol in the presence of pyridine. It was found that heterocondensation of dimethyldichlorosilane and trimethylsiloxychlorosilanes with tetramethyldisiloxanediol in the presence of a HCl acceptor yields cyclic products, mainly hexamers. Higher siloxanediols yield linear products. Orig. art. has: 1 figure and 2 tables. [VS]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 012

OTHER: 007

ATD PRESS: 4022

Am
Card 2/2

L 01148-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5021999

UR/0286/65/000/014/0076/0076
678.1.046(088.6)

AUTHOR: Fomicheva, M. M.⁴⁴; Borisov, S. N.⁴⁴; Khmyrova, N. Ye.⁴⁴ 20B 15

TITLE: A method for stabilizing siloxane rubber stocks. Class 39, No. 172983^{15, 44}

SOURCE: Byulleten' izobreteniy i tovarnyky znakov, no. 14, 1965, 76

TOPIC TAGS: synthetic rubber, siloxane

ABSTRACT: This Author's Certificate introduces a method for stabilizing siloxane rubber stocks containing highly active fillers by adding a dialkylsilyl ester of pinacol to the mixture. The period over which the technological properties of the stocks and the technical properties of the vulcanized products are maintained is increased by using 1,3,3,4,4-pentamethyl-1-ethyl-1-sila-2,5-dioxycyclopentane.

ASSOCIATION: none

SUBMITTED: 10Jun63

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card 1/1 DP

L 21784-66 FWT(m)/FWP(j) RM

ACC NR: AP6002864

(A)

SOURCE CODE: UR/0286/65/000/024/0020/0020

AUTHORS: Borisov, S. N.; Sviridova, N. G.

ORG: none

TITLE: A method for obtaining acetoxysiloxanes. Class 12, No. 176893

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 20

TOPIC TAGS: siloxane, oligomer, organosilicon compound

ABSTRACT: This Author Certificate presents a preparative method for acetoxysiloxanes, based on the interaction of octamethylcyclotetrasiloxanes with acetic anhydride at high temperatures in the presence of a catalyst. To increase the yield and to obtain oligomers with 2 to 7 silicon atoms in the molecule, the reactants are mixed in the molar ratio of 1:2, and ferric chloride is used as the catalyst.

SUB CODE: 07/ SUBM DATE: 14Sep64

Cord 1/1 R

UDC: 547.419.5.07

ACC NR: A77003499

SOURCE CODE: 00000000

AUTHOR: Borisov, S. N.

ORG: All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka)

TITLE: Relationship between chemical structure and the physical constants of siloxane elastomers / Paper presented at the 20th Congress of IUPAC held in July 1965 in Moscow/

SOURCE: Kauchuk i rezina, no. 7, 1966, 3-8

TOPIC TAGS: siloxane, elastomer

ABSTRACT: The relationship between the structure of modified fragments and the vitrification temperature, density, molecular volume and crystallinity of siloxane polymers was studied in detail. The substitution of some of the methyl radicals of the dimethylsiloxane group by hydrogen atoms, ethyl, propyl or butyl groups does not affect the vitrification temperature and density of the polymers very much. The introduction of vinyl groups offers a somewhat higher increase in density and vitrification temperature. Introduction of halogen atoms or nitrile groups into the side alkyl groups, substitution of the methyl radicals with phenyl radicals, or replacement of hydrogen atoms in the siloxane chain with hydrocarbon groups have a substantial effect on the parameters of the

Cord 1/2

UDC: 678.84.004.12:541.6

0426 0031

L 10001-07

ACC NR: AP7003499

4
elastomers. A linear relationship exists between the vitrification temperature and the concentration of modified groups under these conditions. The polarity of the substituents on the silicon atoms and the total mobility of the polymer chains have a definite effect on the vitrification temperature since the dimensions of the substituents play a secondary role. Ye. G. Kogana and Ye. B. Dmolkhovskoy of VNIISK participated in the work. Also V. M. Vdovina (INMHS AN SSSR) contributed to this work. Orig. art. has: 3 figures and 2 tables. [JPRS: 38,970]

SUB CODE: 07,11 / SUBM DATE: 15Dec65 / ORIG REF: 010 / OTH REF: 003

Card 2/2

BORISOV, S.N.; DATOCHNYY, V.V.; KHOVANSKIY, G.S., kand. tekhn.
nauk, otv. red.; ORLOVA, I.A., red.; KORKINA, A.I.,
tekhn. red.

[Tables and nomograms for hydraulic calculation of gas
pipelines]Tablitsy i nomogrammy dlia digravlicheskogo
rascheta gazoprovodov. Moskva, Vychislitel'nyi tsentr
AN SSSR, 1963. 77 p. (MIRA 17:2)

ALEXEJEV, M.V. (Kiev); BORISOV, S.P. (Kiev); PALAMARCUK, V.S. (Kiev)

Seamless insulation from foam polysterene. Stroj vyr ll no.6:
319 '63.

DEBATA, N.A.; KIFER, V.V.;
professor, zaveduyushchiy; PROKHOROVICH, E.V., zasluzhennyy vrach respu-
bliki, glavnyy vrach.

Case of combined oral injury which presents diagnostic difficulties.
Pediatriia no.2:52-54 Mr-Apr '53. (MLRA 6:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy peditaricheskiy institut (for
Borisov, Belaya, and Kifer). 2. Pervaya klinicheskaya detskaya bol'nitsa
(for Prokhorovich, Belaya, and Kifer). 3. Difteriynyy Otdel Gosudarstven-
nogo nauchno-issledovatel'skogo pediatricheskogo instituta (for Borisov).
(Mouth--Wounds and injuries)

PEN, R.M.; BORISOV, S.P., professor, direktor.

Disorders of the higher nervous function in rheumatism in children. *Pediatrics*
no.4:5-10 J1-Ag '53. (MIRA 6:9)

1. Moskovskiy nauchno-issledovatel'skiy pediatricheskiy institut Ministerstva
zdravookhraneniya RSFSR. (Nervous system) (Rheumatic fever)

PATSKHVEROVA, A.G.; FUTER, D.S., professor, zaveduyushchiy; BORISOV, S.P.,
professor, direktor; PROKHOROVICH, Ye.V., zasluzhennyy vrach ~~ESIS~~, glavnyy
vrach.

Clinical aspects and diagnosis of paralysis of the facial nerve in acute
poliomyelitis. *Pediatrics* no.4:49-54 J1-Ag '53. (MLA 6:9)

1. Klinika nervnykh bolezney Tsentral'nogo nauchno-issledovatel'skogo pediatri-
cheskogo instituta na base Klinicheskoy detskoy bol'nitsy (for Futer). 2.
TSentral'nyy nauchno-issledovatel'skiy pediatricheskiy institut na base Kli-
nicheskoy detskoy bol'nitsy (for Borisov). 3. Klinicheskaya detskaya bol'-
nitsa (for Prokhorovich). (Paralysis, Facial) (Poliomyelitis)

ALEKSEYEV, M. V., inzh.; BORISOV, S. P., inzh.; PALAMARCHUK, V. S.,
inzh.

Manufacturing seamless foam polystyrene insulation. Mashino-
stroenie no.5:87-89 S-0 '62. (MIRA 16:1)

1. Proyektno-konstruktorskiy tekhnologicheskiy institut
Kiyevskogo soveta narodnogo khozyaystva.

(Styrene, Polymers of) (Insulation(Heat))

BORISOV, Sergey Prokof'yevich; NOVIKAS, M.N., inzh., red.; KHITROVA,
N.A., tekhn. red.

[The "Svetofor" Plant is an enterprise of communist labor]
Zavod "Svetofor" - predpriatie kommunisticheskogo truda .
Moskva, Transzheldorizdat, 1962. 45 p. (MIRA 15:11)
(Nizhe-Dneprovsk--Electric equipment industry)

AGOSHKOV, Mikhail Ivanovich; BORISOV, Sergey Sergeyevich; BOYARSKIY,
Vladimir Anan'yevich; SIPYAGINA, Z.A., red. izd-va; SABITOV, A.,
tekhn. red.

[Development of ore and placer deposits] Razrabotka rudnykh i
rossypnykh mestorozhdenii. Moskva, Gosgortekhzdat, 1962.
(MIRA 16:1)

(Ore deposits)

BORISOV, S.S., getayy inzhener.

~~www.ozon.ru~~
A.F.Sukhanov's article. Ger.shur.no.9:59 S '56. (MLRA 9:10)

1.Nizhne-Tagil'skiy gerne-metallurgicheskiy tekhnikum.
(Blasting)

GORNOVOY, B.A., gornyy inzh.; BORISOV, S.S., gornyy inzh.; KOLIBABA, V.L.;
ORLOV, V.S.

Improving the breaking method in the Gora Blagodat' Mine. Gor.
zhur. no.11:73-74 N '61. (MIRA 15:2)

1. Nizhne-Tagil'skiy gorno-metallurgicheskiy tekhnikum (for Gornovoy,
Borisov). 2. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for
Kolibaba, Orlov).
(Sverdlovsk Province--Boring) (Blasting)

PAVLOV, Konstantin Vasil'yevich[deceased]; SLASTUNOV, V.G., gorn.
inzh., retsenzent; ~~BORISOV, S.S.~~, retsenzent; PARTSEVSKIY,
V.N., red.izd-va; MAKSIMOVA, V.V., tekhn. red.

[Safety engineering and mine rescue work in the mining
industry] Tekhnika bezopasnosti i gornospasatel'noe delo
v gornorudnoi promyshlennosti. Moskva, Gosgortekhnizdat,
1963. 335 p. (Mine safety) (MIRA 16:5)

BORISOV, Sergey Sergeyevich; GORNOVOY, Boris Aleksandrovich;
KLOKOV, Mikhail Pavlovich; GELYUTA, Ye.Z., dots. kan.
tekhn. nauk retsenzent; KOVALEV, I.A., otv. red.

[Mining] Gornoe delo. Moskva, Nedra, 1964. 426 p.
(MIRA 18:3)

REEL 63

FROM

END

BONDARINA, V.A.